

purposes of further prosecution thereof in a Division.

Applicant does not traverse the restriction.

LISTING OF CLAIMS

Claims 1-12 (drawn to a division)

Claim 13 (currently amended): A light emitting diode having a plated substrate with a mirror, comprising:
a permanent metal substrate;
a mirror formed on said permanent metal substrate;
an LED epitaxial structure formed on said mirror, and sequentially comprising a second cladding layer, an active layer, a first cladding layer, a window and a metal contact layer, wherein said second cladding layer is partially exposed;
a first electrode formed on said metal contact layer; and
a second electrode formed on said exposed second cladding layer;
a mirror formed beneath said LED epitaxial structure; and
a permanent metal substrate plated beneath said mirror.

Claim 14 (original): The light emitting diode as claimed in claim 13, wherein said LED epitaxial structure is made from a material selected from the group consisting of $\text{Ga}_x\text{Al}_y\text{In}_{1-x-y}\text{N}$, $(\text{Al}_x\text{Ga}_{1-x})_y\text{In}_{1-y}\text{P}$, $\text{In}_x\text{Ga}_{1-x}\text{As}$, $\text{ZnS}_x\text{Se}_{1-x}$; wherein $0 \leq x \leq 1$, $0 \leq y \leq 1$.

Claim 15 (original): The light emitting diode as claimed in claim 13 further comprising a transparent conductive film between said first electrode and said metal contact layer.

Claim 16 (canceled)

Claim 17 (canceled)

Claim 18 (original): The light emitting diode as claimed in claim 13, wherein said mirror is made from a composite of a metal with a low refractivity and an insulating layer with a high refractivity, and said insulating layer is adjacent to said LED epitaxial structure.

Claim 19 (original): The light emitting diode as claimed in claim 18, wherein said composite is selected from the group consisting of Al/Al₂O₃, Al/SiO₂, Al/MgF₂, Pt/Al₂O₃, Pt/SiO₂, Pt/MgF₂, Al/Al₂O₃, Al/SiO₂, Al/MgF₂, Au/Al₂O₃, Au/SiO₂, Au/MgF₂, Ag/Al₂O₃, Ag/SiO₂, Ag/MgF₂.

Claim 20 (currently added): The light emitting diode as claimed in claim 14, wherein said LED epitaxial structure is made from (Al_xGa_{1-x})_yIn_{1-y}P; wherein 0 ≤ x ≤ 1, 0 ≤ y ≤ 1; and said mirror is made from a material selected from the group consisting of Ag, Au, Au/Zn, Au/Be, Au/Ge, Au/Ge/Ni and Zn, or mixtures thereof.

Claim 21 (currently added): The light emitting diode as claimed in claim 13, wherein said LED epitaxial structure is made from Ga_xAl_yIn_{1-x-y}N; wherein 0 ≤ x ≤ 1, 0 ≤ y ≤ 1; and said mirror is made from a material selected from the group consisting of Ag, Pt, Pd, Al, and Ni, or mixtures thereof.

Claim 22 (currently added): The light emitting diode as claimed in claim 13, wherein said LED epitaxial structure is made from In_xGa_{1-x}As; wherein 0 ≤ x ≤ 1, 0 ≤ y ≤ 1; and said mirror is made from a material selected from the group consisting of Ag, Au, Au/Zn, Au/Be, Au/Ge, Au/Ge/Ni and Zn, or mixtures thereof.

Claim 23 (currently added): The light emitting diode as claimed in claim 13, wherein said LED epitaxial structure is made from ZnS_xSe_{1-x}; wherein